

## REMARKS

This Amendment, which is timely with the automatic grant of the accompanying Petition for Extension of Time, is submitted under § 37 C.F.R. 1.111 in response to the first, non-final Office Action mailed December 16, 2002, wherein all of the pending claims, namely claims 1 – 8, 10 – 17, 20 – 25 and 28 – 65, were rejected as being unpatentable for various reasons which are described in greater detail below. By this amendment, applicant has canceled claims 63 and 64 without prejudice, and traverses the rejection of remaining claims without further amendment. Claims 1 – 8, 10 – 17, 20 – 25, 28 – 62 and 65 remain pending. Reconsideration and reexamination of the pending claims in view of the following remarks are respectfully requested.

✓ Claims 1 – 8 and 34 – 41 – These claims were rejected as being obvious over Blankenship et al. in view of Kim et al. Applicant submits that these references are directed to much different devices and there is no suggestion or motivation to combine their teachings. In particular, the device of Kim et al., is designed to determine the spot on the screen at which the device is aimed. The Kim et al. device is for narrow applications, such as video games, wherein it is desired to know where the output of a device is *aimed* so as to enable a user to point at screen objects. In contrast, the mouse and trackball devices of Blankenship et al. do not rely on physically aiming the device output at a specific screen location. Rather such devices use the rotation of a ball to move a cursor or other pointer on a screen without regard to the aiming or specific orientation of the device. The Kim et al. device lacks a ball or other equivalent mechanism because it is superfluous to their device.

In order to operate effectively the Kim et al. device creates a relatively *narrow* beam because it relies on the small differences in beam intensity detected at the various receptors to calculate the position the beam is aimed at. A plurality of receptors are used around the periphery of the screen for the sole purpose of enabling calculation of the aim of the device. In contrast the Blankenship et al. device uses a relatively broad beam so that the mouse/trackball signal can be detected without any need to specifically point the device at the screen. Since the aim of the mouse is superfluous to Blankenship et al., there would be no reason to employ the sensors used in Kim et al.

Thus, there is no motivation to combine the aim sensing device of Kim et al. with the pointing device of Blankenship et al.

Claims 10 – 15 and 42 – 46 – These claims were rejected as being obvious over Junod et al. in view of Donovan. Junod et al. shows a wireless mouse, having an on-board CPU, designed for reduced power consumption. The mouse has three operational states – normal, standby and sleep. The main difference in these states is the *rate* at which the photodetectors used to sense movement of the mouse ball are sampled (see, e.g., Fig. 5 and related text). Donovan shows a mouse using pulsing of the optical signal to conserve power. Donovan synchronizes light pulses with the on/off state of his photoreceptors, such that whenever light is emitted from an LED, the corresponding photodetector is “on”. The variable sampling rate device of Junod et al. and the <sup>(2)</sup> pulsed device of Donovan are distinct techniques. It is submitted that the examiner has failed to show a proper rationale for combining these references. The references teach *alternative* ways of reducing power consumption, and there is no showing of motivation to combine.

Moreover, even if the teachings were combined, the combination does not show the claimed invention. Specifically, present invention uses both continuous sampling of the ball position and pulsed sampling. There is nothing in either reference which suggest this combination. At most, the combination would lead one to design a multi-state device which uses pulsed light – not a device which sometimes uses pulsed light and other times does not. <sup>(2) NOT CLAIMED</sup>

With regard to claims 12 and 43, neither reference makes any suggestion of a power range switch. In rejecting these claims the examiner refers to a passage in Junod et al. which discloses a plurality of user selectable *transmission channels* for selecting the frequency of the mouse signal, so as to avoid interference if multiple devices are in operation in the same vicinity. There is nothing in Junod et al. which suggests that there is any difference in the power levels of the different transmission channels. Thus the availability of different transmission channels is entirely different than enabling the user to set the power output level of the device.

Claims 16, 17 and 20 - 23 – These claims were rejected as being obvious over Blankenship et al. in view of Yasuo and Heng-Chuen, with Wang added as to claims 21 and 23. It is respectfully submitted that the combination of references do not show or suggest the claimed features. Applicant submits that the examiner has merely used hindsight to pick and choose features found in a large number of disparate references to reconstruct what is claimed. For example, Yasuo teaches the advantage of maintaining the input device on a flat surface – there is

nothing in the reference which would motivate the user to operate the device otherwise. Blankenship et al. also does not suggest using their mouse as a handheld device. There is nothing in any of the applied references which would motivate one to modify Yasuo's mouse or Blankenship et al.'s mouse to operate as a handheld pointer. The teachings of Heng-Chuen, although showing a handheld device, relate to an much different pointing device configured in a much different way. The examiner has not shown any suggestion or motivation for combining these teachings. The fact that the examiner has had to rely on three (and as to certain claims four) references to reject these claims suggests that they are not obvious.

None of the references relied upon by the Examiner makes any mention of a laser pointer as in Claim 23.

✓ Claims 24, 25 and 28 – These claims were rejected as being obvious over Yeom et al. in view of Blankenship, et al. with Klein added as to claim 28. Yeom et al. teaches a combination of a mouse and cordless telephone which operates through a separate telephone transceiver located in a computer housing. It appears that the telephone transceiver operates independently of the computer. The teachings of Yeom et al. are limited to a telephone which operates using a radio frequency transmitter, and the reference suggests that infrared would not be acceptable for telephone operation because it is limited to line of sight connection which is unacceptable for a cordless telephone. In one embodiment an rf transmitter is used for the telephone and an infrared transmitter is used for the mouse. It is submitted that it would not have been obvious to modify the Yeom et al. reference such that both the mouse and telephone functionality would rely on infrared transmission as required by the claims. Further, there is nothing which suggests using a microphone as a data input device, as in claim 25. The telephone of Yeom et al. is not a data input device, as it appears to operate independently of the computer.

✓ Claims 29 – 33 and 56 – 60 – These claims were rejected as being obvious over Oka in view of Long et al. Neither reference shows a computer with two pointing devices as is claimed. The examiner has ignored the requirement of these claims that there be a second “pointing device.” Instead the examiner refers to a second “input” device – i.e., a keyboard. Further, the arbitration circuit of Long et al. does not arbitrate signals from two pointing devices, it simply handles arbitration of signals from a variety of different I/O devices. The defect in the

examiner's rejection applies *a fortiori* to claim 30 – 32 and 57, which require that there be a *third* pointing device. Thus, it is respectfully submitted that even if these references are combined they do not teach subject matter of the claims.

✓ Claims 47 – 52, 61 and 65 – These claims were rejected as being obvious over Herng-Chuen in view of Yasuo, with Wang added as to claims 49 – 52. The pointing device of the primary reference, Herng-Chuen is not a mouse and there is no motivation shown to modify the Herng-Chuen device to comprise a mouse. A mouse requires a flat surface to operate, and thus it is contrary to normal functionality to use a mouse as a handheld device. Further Herng-Chuen does not suggest having two pointing devices, one on each of the top and bottom surfaces. The secondary reference Yasuo, teaches away from the idea of holding the unit in one's hand, and does not appear to be suitable for positioning in a recess in a notebook computer. Thus, it is submitted that the examiner has failed to show any motivation or suggestion for combining the references. +

None of the references show or suggest incorporating a laser pointer into the device as set forth in claim 52 .

✓ Claims 53 and 54 – These claims were rejected under 35 U.S.C. § 102 as being anticipated by Yeom et al. Applicant submits that the rf transmission from the telephone of Yeom et al. is not computer data, but is merely audio information being sent to a separate “telephone transmit-receive apparatus” which happens to be installed in the computer housing. In the words of the patent the invention involves: “installing the base unit of a cordless telephone inside the chassis of either a laptop or a personal computer...” (Column 3, lines 22 – 24.) Throughout the patent it is made clear that the telephone transmit-receive apparatus functions independently of the computer.

There is nothing in the reference which suggests audio information is processed by the computer. Thus, Yeom et al. does not meet the claim requirement that there be a “non-pointing device . . . for generating input information for the computer.”

Claim 55 – This claim, which is dependent on claim 53, was rejected as being obvious over Yeom et al. in view of Klein et al. Therefore, it is submitted that claim 55 is patentable for

the same reasons discussed above in respect to claim 53. It is further noted that there is nothing in either reference which suggests the substitution of a joystick (as in Klein et al.) for the telephone of Yeom et al.

➤ Claim 62 – This rejection is confusing. Claim 62 is dependent on claim 61. Although the examiner makes reference to the rejection of claim 61, the primary reference applied against claim 61 (Herng-Chuen) is not cited against claim 62. Instead, the rejection is based on Yasuo “as applied to **claim 67**” in view of Kim et al. In any case, Applicants refer to their argument in favor of the patentability of base claim 61.

Further, as to the applicability of Kim et al., applicants refer to their argument in favor of the patentability of claim 1.

Obviousness-type Double Patenting – Upon receiving an indication of allowable subject matter, Applicants will submit a suitable terminal disclaimer to overcome the obviousness-type double patenting rejections of claims 1 – 8, 10 – 17, 20 – 25, 28 – 62 and 65. This offer is made for convenience and is not an admission that the Applicants agree that any of the claims of the present application are obvious in view of their prior issued patent.

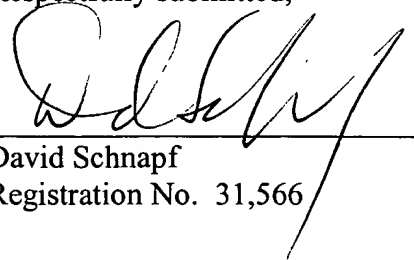
### Conclusion

In view of the foregoing amendments and remarks, Applicants submit that the case is now in condition for allowance (subject to the filing of a terminal disclaimer) and such action is earnestly solicited. The examiner is invited to telephone the undersigned at the below listed number if doing so would advance the prosecution of the application.

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Respectfully submitted,

  
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